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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/544,231

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Toshiyuki Fujine

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EXAMINER

MA, CALVIN

ART UNIT

PAPER NUMBER

2629

NOTIFICATION DATE

DELIVERY MODE

06/27/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No. 10/544,231	Applicant(s) FUJINE, TOSHIYUKI	
	Examiner CALVIN C. MA	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 April 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3 and 5-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Kawabe US Patent 7161576.

As to claims 1 and 6, Kawabe discloses a liquid crystal display displaying, using a liquid crystal display panel, an image responsive to input image data, comprising:

driving means for driving the liquid crystal display panel in either an impulse drive mode (moving picture mode) or a hold drive mode (still image mode) (see Col. 17, Lines 60-67), (i) in the impulse drive mode an image display period (see Fig. 4, element 402) for performing display according to previously-specified certain monochrome display data ("black level", Col. 8, Lines 63-64) being generated within an input image data rewriting period for writing in each pixel of the liquid crystal display panel (see Col. 9, lines 18-64), while (ii) in the hold drive mode display according to the input image data being always performed within the rewriting period, without setting the monochrome

Art Unit: 2629

display period (i.e. the two modes of the display panel are used to implement the blanking of the display, see Col. 17, lines 60-67);

switching means (i.e. the switching signal 109) (see Fig. 1, Col. 18, Lines 4) for switching between the modes for driving the liquid crystal display panel by the driving means (i.e. the switching signal switches according to either hold display or impulse mode) (see Col. 10, Lines 60-65); and

means for varying, in accordance with the input image data and according to one of the modes for driving the liquid crystal display panel (see Col. 10, lines 43-50), a gradation voltage to be applied to the liquid crystal display panel, so as to prevent, regardless of the hold display mode or the impulse display mode, changes in gamma characteristics due to differences in response speed of liquid crystal between display gradations, which differences are caused by insertion of the monochrome display data (i.e. the changes in gamma characteristics due to differences are prevented by applying another gradation voltage, and since the system works for both hold and impulse mode it meet the claimed limitation) (see Col. 10, Line 42-Col. 11, Lines 26).

As to claim 2, Kawabe teaches wherein the means for varying the gradation voltage varies a reference gradation voltage for driving the liquid crystal display panel (i.e. the gradation voltage varies for driving the liquid crystal display to create a corrected image output) (see Fig. 5, Col. 11, Lines 1-26).

As to claim 3, Kawabe teaches the LCD of claim 2, further comprising: a storage section storing sets of reference gradation voltage data previously specified (i.e. the buffer 507 and buses 508 and 504 must have memory element that stores gradation voltage to allow the switching of the gradation voltage) (see Fig. 5, Col. 11, Lines 1-26)

As to claim 5, Kawabe teaches the LCD of any one of claims 1 through 3, wherein the switching means switches between the modes for driving the LCD panel in accordance with a user's instruction (i.e. the user send the control signal for the switching means) (see Col. 18, Lines 4-7)

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kawabe in view of Iisaka US Patent 7084861.

As to claim 4, Kawabe does not explicitly teach the temperature detection system, however Iisaka discloses the means for detecting a temperature in the LCD (i.e. the temperature sensor output) (see Iisaka, Fig. 1); and means for varying a gradation voltage to be applied to the liquid crystal display panel, in accordance with the input

image data and the detected temperature in the display (i.e. the gradation data is varied according to the ambient temperature) (see lisaka, Fig. 1, Col. 9, Lines 24-50)

Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to have used the temperature based gradation adjustment system of lisaka in the overall LCD panel design of Kawabe in order to improve the overall LCD picture quality (see lisaka, Col. 9, Lines 3-50).

Response to Arguments

5. Applicant's arguments filed March 4, 2008 have been fully considered but they are not persuasive.

Regarding claims 1-3 and 5, in page 5 of the response the applicant argues that Kawabe does not disclose prevention of changes in gamma characteristics for hold-type scanning and impulse type scanning. The examiner disagrees with this argues in that the new claim language in claim 1 does not significantly change the limitation of the prior claim scope as the phrase "regardless of the ... impulse display mode" fails to limits of the earlier part of the claim, so taken as a whole the new claim can be interpreted as the means regardless of the two mode prevent changes in the gamma characteristic of the display, and since the adjustment gamma voltage used in Kawabe is applied in both mode it successfully prevent changes in the display performance by maintaining an optimal voltage output regardless of the mode.

Also the applicant argues on page 6, paragraph 3-5 of the response, regarding to claim 4 that neither lisaka nor Kawabe discloses that "the means for varying the

gradation ... temperature in the display", the examiner disagree since the modification of the driving of pixels according to the temperature detection is a modification of the voltages applied to the pixel. As the whole display is merely a matrix of all of its display pixels and the display pixel are applied with different voltage in the on and off state. The end effect of having temperature adjustable display is that the gradation voltage is also modified as the aggregate sum of the voltage applied to the display changes due to temperature compensation.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CALVIN C. MA whose telephone number is (571)270-1713. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chanh Nguyen can be reached on 571-272-7772. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Calvin Ma
June 11, 2008

/Chanh Nguyen/
Supervisory Patent Examiner, Art
Unit 2629